



March 7, 2014

Marlene H. Dortch  
Office of the Secretary  
Federal Communications Commission  
445 12<sup>th</sup> Street, SW  
Washington, DC 20554

Re: WC Docket No. 10-90, Expression of Interest

Ms. Dortch;

Empire Telephone Corporation, North Penn Telephone Co. and their affiliates, hereby provide this “Expression of Interest” in conjunction with the Commission's order<sup>1</sup> initiating rural broadband experiments to provide robust, scalable high-speed broadband to unserved locations in high-cost areas.

#### **Background**

Empire Telephone Corporation (Empire) is a telecommunications, digital video, and an internet service provider located in New York State. The company has 45 employees and has provided telephone service to rural New York customers for over 100 years. Today, Empire provides voice, video, and data services to its rural customers in Burdett, East Pembroke, Lodi, Odessa, Prattsburgh and Pulteney, New York. Empire Telephone is currently an eligible telecommunications carrier (ETC) in its rate of return areas, but will apply for ETC status in proposed price cap service areas upon a successful application for the rural broadband experiment.

North Penn Telephone (North Penn) is a telecommunications, digital video, and an internet service provider located in Pennsylvania. The company has 29 employees and has provided telephone service to rural Pennsylvania customers for over 60 years. Today, North Penn provides voice, video, and data services to its rural customers in Bently Creek, Millerton, and Roseville, Pennsylvania. North Penn Telephone is currently an eligible telecommunications carrier (ETC) in its rate of return areas, but will apply for ETC status in proposed price cap service areas upon a successful application for the rural broadband experiment.

Empire Telephone and North Penn Telephone are affiliated through common ownership.

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<sup>1</sup> See Technology Transitions et al., GN Docket No. 13-5 et al., Order, Report and Order and Further Notice of Proposed Rulemaking, Report and Order, Order and Further Notice of Proposed Rulemaking, Proposal for Ongoing Data Initiative, FCC 14-5 (rel. Jan. 31, 20 14).

### **Description of the Project**

Broadband service has become the most sought after technology by rural customers. Customers in the rural areas surrounding Empire and North Penn's service territories do not have access to high speed broadband networks. Customer density in the rural census tracts is approximately 4 customers per square mile making it extremely costly to serve with high speed broadband. Empire and North Penn seek to expand its network by deploying FTTH technology to the unserved eligible locations within the geographic area indicated in this expression of interest.

### **Proposed Technology**

Empire and North Penn will initially deploy a FTTH network using fiber electronics capable of providing broadband in a range of service options up to one (1) Gigabit Ethernet (GE) service. Greater broadband speeds are achievable with current technology and will be deployed to meet demand on an as needed basis. A network interface device will be installed at each customer location and will be equipped with battery backup capability in case of electrical power outages.

Empire and North Penn's proposed solution will be deployed over a FTTH system designed to deliver 2.1 Gbps through either a Gigabit Passive Optical Network (GPON) solution or an Active Gigabit Ethernet (GE) solution using the same platform. This system allows the flexibility to meet current and future bandwidth requirements of video, data and voice and easily move to full GE solution if required.

The proposed system will also be scalable to a ten (10) gigabit capacity by simply changing out optical electronics within the deployed system. This allows Empire to increase bandwidth capacity to residential customers, businesses, or anchor institutions to meet future bandwidth demands. In addition, the proposed fiber is capable of providing 100 gigabit connections over 40 wavelengths with today's technology. Once fiber is deployed, the only limitations are the developed electronics available in the market place.

### **Anchor Institutions**

Empire and North Penn currently serve many anchor institutions today. A listing of those anchor institutions are included in [Attachment 2](#). Many of those anchor institutions are incapable of accessing broadband service at a minimum speed of 3 Mbps downstream / 768 kbps upstream. Deploying high speed broadband service will benefit not only the anchor institutions but also the rural customers they seek to provide service to.

### **Partnerships**

Empire and North Penn will utilize its existing network resources and middle mile infrastructure to minimize construction cost. The company also has access to a regional fiber optic network which provides connectivity and additional capacity to support the proposed project.

### **Geography and Eligible Locations**

The company proposes to provide voice, video, and data services through a state of the art fiber network in price cap and rate of return census tracts identified in Attachment 1. The company proposes to build a FTTH network to 14,613 eligible high cost locations in price cap territories and an additional 2,248 eligible high cost locations in its own rate of return area.

### **Proposed Services**

The company will offer Data, Voice, and Video services to customers within the proposed rural census tracts. Empire and North Penn will offer broadband service at a minimum speed of 10 Mbps with various service tiers created to meet demand up to 1 Gbps for residential customers.

### **Project Cost / Funding**

The estimated construction cost is a high level estimate based on historical data. The total estimated construction cost for the project is:

<b>Project Recap:</b>		
<b><u>Empire Telephone Corporation:</u></b>		
	Estimated Construction Cost – Price Cap Census Tracts	\$83,778,000
	Empire Investment	\$4,188,000
	Low Interest Loan Guarantees	\$12,567,000
	Rural Broadband Experiment Funding (Requested as one time funding)	\$67,023,000
	Estimated Construction Cost – Rate of Return Census Tracts	\$9,522,000
	Empire Investment	\$475,000
	Low Interest Loan Guarantees	\$1,429,000
	Rural Broadband Experiment Funding (Requested as one time funding)	\$7,618,000
<b><u>North Penn Telephone Co.:</u></b>		
	Estimated Construction Cost – Price Cap Census Tracts	\$3,900,000
	North Penn Investment	\$195,000
	Low Interest Loan Guarantees	\$585,000
	Rural Broadband Experiment Funding (Requested as one time funding)	\$3,120,000
	Estimated Construction Cost – Rate of Return Census Tracts	\$3,966,000
	North Penn Investment	\$198,000
	Low Interest Loan Guarantees	\$595,000
	Rural Broadband Experiment Funding (Requested as one time funding)	\$3,173,000

Empire Telephone Corporation and North Penn Telephone Co. appreciate the opportunity to provide this expression of interest for funding of rural broadband experiments. Please contact the undersigned with any questions.

Respectfully submitted,

/s/ Brian Ketchum

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Brian Ketchum  
Vice President



**Empire Telephone Company**  
**Eligible Locations by Census Tract**

**Attachment 1**

Price Cap Service Area							
State	County	County Name	Census Tract	Eligible High Cost Locations	Extremely High Cost Locations	Total High Cost Locations	Estimated Construction Costs
<b>Empire Telephone Corporation</b>							
NY	36015	Chemung	36015010100	572	13	585	\$ 3,510,000
NY	36015	Chemung	36015010200	162	3	165	\$ 990,000
NY	36015	Chemung	36015010300	35	1	36	\$ 216,000
NY	36015	Chemung	36015010700	94	0	94	\$ 564,000
NY	36015	Chemung	36015011000	510	21	531	\$ 3,186,000
NY	36015	Chemung	36015011200	187	5	192	\$ 1,152,000
NY	36037	Genesee	36037940100	102	2	104	\$ 624,000
NY	36037	Genesee	36037950100	1	0	1	\$ 6,000
NY	36037	Genesee	36037950200	36	1	37	\$ 222,000
NY	36037	Genesee	36037950300	21	13	34	\$ 204,000
NY	36037	Genesee	36037951100	64	1	65	\$ 390,000
NY	36037	Genesee	36037951300	156	1	157	\$ 942,000
NY	36037	Genesee	36037951400	48	0	48	\$ 288,000
NY	36051	Livingston	36051030100	49	5	54	\$ 324,000
NY	36051	Livingston	36051030201	58	1	59	\$ 354,000
NY	36051	Livingston	36051030202	1	0	1	\$ 6,000
NY	36051	Livingston	36051030600	4	0	4	\$ 24,000
NY	36051	Livingston	36051030700	3	0	3	\$ 18,000
NY	36051	Livingston	36051030800	72	6	78	\$ 468,000
NY	36051	Livingston	36051031100	122	2	124	\$ 744,000
NY	36051	Livingston	36051031200	143	10	153	\$ 918,000
NY	36051	Livingston	36051031300	153	10	163	\$ 978,000
NY	36069	Ontario	36069050201	1	0	1	\$ 6,000
NY	36069	Ontario	36069050400	74	2	76	\$ 456,000
NY	36069	Ontario	36069050500	40	0	40	\$ 240,000
NY	36069	Ontario	36069050602	4	0	4	\$ 24,000
NY	36069	Ontario	36069051100	2	0	2	\$ 12,000
NY	36069	Ontario	36069051300	6	0	6	\$ 36,000
NY	36069	Ontario	36069051400	11	0	11	\$ 66,000
NY	36069	Ontario	36069051500	25	1	26	\$ 156,000
NY	36069	Ontario	36069052000	88	2	90	\$ 540,000
NY	36069	Ontario	36069052200	2	2	4	\$ 24,000
NY	36097	Schuyler	36097950100	1	0	1	\$ 6,000
NY	36097	Schuyler	36097950200	260	1	261	\$ 1,566,000
NY	36097	Schuyler	36097950300	391	6	397	\$ 2,382,000
NY	36097	Schuyler	36097950400	106	1	107	\$ 642,000
NY	36097	Schuyler	36097950500	45	1	46	\$ 276,000
NY	36099	Seneca	36099950100	408	11	419	\$ 2,514,000
NY	36099	Seneca	36099950200	1	0	1	\$ 6,000
NY	36099	Seneca	36099950300	1	0	1	\$ 6,000
NY	36099	Seneca	36099950500	1	0	1	\$ 6,000
NY	36099	Seneca	36099950700	110	4	114	\$ 684,000

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<b>Price Cap Service Area</b>							
<b>State</b>	<b>County</b>	<b>County Name</b>	<b>Census Tract</b>	<b>Eligible High Cost Locations</b>	<b>Extremely High Cost Locations</b>	<b>Total High Cost Locations</b>	<b>Estimated Construction Costs</b>
<b>Empire Telephone Corporation (cont'd)</b>							
NY	36099	Seneca	36099950800	54	1	55	\$ 330,000
NY	36101	Steuben	36101960200	231	28	259	\$ 1,554,000
NY	36101	Steuben	36101960300	155	24	179	\$ 1,074,000
NY	36101	Steuben	36101960400	65	1	66	\$ 396,000
NY	36101	Steuben	36101960500	680	14	694	\$ 4,164,000
NY	36101	Steuben	36101960600	82	0	82	\$ 492,000
NY	36101	Steuben	36101961000	864	29	893	\$ 5,358,000
NY	36101	Steuben	36101961100	199	9	208	\$ 1,248,000
NY	36101	Steuben	36101961300	207	17	224	\$ 1,344,000
NY	36101	Steuben	36101961400	166	6	172	\$ 1,032,000
NY	36101	Steuben	36101961500	232	8	240	\$ 1,440,000
NY	36101	Steuben	36101961600	20	4	24	\$ 144,000
NY	36101	Steuben	36101961700	14	1	15	\$ 90,000
NY	36101	Steuben	36101961800	898	31	929	\$ 5,574,000
NY	36101	Steuben	36101961900	216	9	225	\$ 1,350,000
NY	36101	Steuben	36101962000	1,167	55	1,222	\$ 7,332,000
NY	36101	Steuben	36101962100	151	1	152	\$ 912,000
NY	36101	Steuben	36101962200	35	3	38	\$ 228,000
NY	36101	Steuben	36101962300	15	0	15	\$ 90,000
NY	36101	Steuben	36101962800	6	0	6	\$ 36,000
NY	36101	Steuben	36101963000	352	4	356	\$ 2,136,000
NY	36121	Wyoming	36121970100	103	0	103	\$ 618,000
NY	36121	Wyoming	36121970200	134	5	139	\$ 834,000
NY	36121	Wyoming	36121970300	18	0	18	\$ 108,000
NY	36121	Wyoming	36121970400	131	3	134	\$ 804,000
NY	36121	Wyoming	36121970500	39	0	39	\$ 234,000
NY	36121	Wyoming	36121970600	46	2	48	\$ 288,000
NY	36121	Wyoming	36121970700	48	2	50	\$ 300,000
NY	36121	Wyoming	36121970800	370	11	381	\$ 2,286,000
NY	36121	Wyoming	36121970900	117	4	121	\$ 726,000
NY	36121	Wyoming	36121971000	349	0	349	\$ 2,094,000
NY	36121	Wyoming	36121971100	370	15	385	\$ 2,310,000
NY	36123	Yates	36123150100	320	2	322	\$ 1,932,000
NY	36123	Yates	36123150200	344	5	349	\$ 2,094,000
NY	36123	Yates	36123150300	716	25	741	\$ 4,446,000
NY	36123	Yates	36123150400	113	0	113	\$ 678,000
NY	36123	Yates	36123150500	319	2	321	\$ 1,926,000
<b>Totals</b>						<b>13,963</b>	<b>\$ 83,778,000</b>

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Price Cap Service Area							
State	County	County Name	Census Tract	Eligible High Cost Locations	Extremely High Cost Locations	Total High Cost Locations	Estimated Construction Costs
<b>North Penn Telephone</b>							
PA	42015	Bradford	42015950200	12	0	12	\$ 72,000
PA	42015	Bradford	42015950500	178	5	183	\$ 1,098,000
PA	42117	Tioga	42117950300	404	23	427	\$ 2,562,000
PA	42117	Tioga	42117950400	1	1	2	\$ 12,000
PA	42117	Tioga	42117950900	5	5	10	\$ 60,000
PA	42117	Tioga	42117951000	13	3	16	\$ 96,000
<b>Totals</b>						<b>650</b>	<b>\$ 3,900,000</b>

**Empire Telephone Company**  
**Eligible Locations by Census Tract**

**Attachment 1**

Rate of Return Service Area							
State	County	County Name	Census Tract	Eligible High Cost Locations	Extremely High Cost Locations	Total High Cost Locations	Estimated Construction Costs
<b>Empire Telephone Corporation</b>							
NY	36015	Chemung	36015010200	31		31	\$ 186,000.00
NY	36037	Genesee	36037950300	175		175	\$ 1,050,000.00
NY	36037	Genesee	36037950400	20		20	\$ 120,000.00
NY	36037	Genesee	36037951400	3		3	\$ 18,000.00
NY	36097	Schulyer	36097950100	404		404	\$ 2,424,000.00
NY	36097	Schulyer	36097950400	2		2	\$ 12,000.00
NY	36097	Schulyer	36097950500	252		252	\$ 1,512,000.00
NY	36099	Seneca	36099950900	151		151	\$ 906,000.00
NY	36101	Steuben	36101960100	191		191	\$ 1,146,000.00
NY	36101	Steuben	36101960200	277		277	\$ 1,662,000.00
NY	36101	Steuben	36101961400	8		8	\$ 48,000.00
NY	36109	Tompkins	36109001800	8		8	\$ 48,000.00
NY	36123	Yates	36123150300	65		65	\$ 390,000.00
<b>Totals</b>						<b>1,587</b>	<b>\$ 9,522,000</b>
<b>North Penn Telephone</b>							
PA	42015	Bradford	42015950500	2		2	\$ 12,000.00
PA	42015	Bradford	42015950600	246		246	\$ 1,476,000.00
PA	42015	Bradford	42015950700	10		10	\$ 60,000.00
PA	42015	Bradford	42015950800	143		143	\$ 858,000.00
PA	42117	Tioga	42117950100	130		130	\$ 780,000.00
PA	42117	Tioga	42117950400	2		2	\$ 12,000.00
PA	42117	Tioga	42117950500	126		126	\$ 756,000.00
PA	42117	Tioga	42117950600	2		2	\$ 12,000.00
				661			
<b>Totals</b>						<b>661</b>	<b>\$ 3,966,000</b>



**Empire Telephone Corp. - Anchor Institutions**

<b><u>Name</u></b>	<b><u>Address</u></b>
AT&T	4715 STEWART RD, TOWN OF MONTOUR
EAST PEMBROKE FIRE DEPARTMENT	2633 MAIN, EAST PEMBROKE NY
EASTERN MICROWAVE	2609 PULVER RD, TOWN OF ITALY NY
ELIZABETH PERT MEM LIBRARY	5736 ROUTE 414, TOWN OF HECTOR NY
GENESEE COUNTY ARC	8658 HARTSHORN RD, TOWN OF BATAVIA NY
HECTOR_LOGAN FIRE DEPARTMENT	5736 ROUTE 414, TOWN OF HECTOR NY
HUMANE SOCIETY OF SCHUYLER COUNTY	2386 COUNTY ROUTE 10, TOWN OF CATHARINE NY
INDIAN FALLS FIRE DEPT	8030 ALLEGHANY RD, INDIAN FALLS NY
LODI VOL FIRE DEPT	8834 ROUTE 414, LODI NY
LODI WHITTIER LIBRARY	2155 SENECA, LODI NY
M & T BANK	12 CHAPEL ST, PRATTSBURGH NY
NEW YORK POWER AUTHORITY	2352 TOWN LINE RD, TOWN OF ALABAMA NY
NEW YORK STATE	8290 INDIAN FALLS RD, TOWN OF PEMBROKE NY
NYSEG	4006 ROUTE 414, TOWN OF HECTOR NY
NYSEG	7198 FLYNN RD, PRATTSBURGH NY
NYSEG	6137 DILLENBECK RD, PRATTSBURGH NY
NYSEG	2609 PULVER RD, TOWN OF ITALY NY
ODESSA MONTOUR CENTRAL SCHOOL	300 COLLEGE AVE, ODESSA NY
PEMBROKE ELEMENTARY SCHOOL	2486 MAIN, EAST PEMBROKE NY
PLANNED ALERT INC	45 MAIN ST, PRATTSBURGH NY
POST OFFICE	8455 MAIN, LODI NY
PRATTSBURGH CENTRAL SCHOOL	2 NAPLES HILL RD, PRATTSBURGH NY
PRATTSBURGH FIRE AND AMBULANCE	13 ALLIS ST, PRATTSBURGH NY
PRATTSBURGH LIBRARY	26 MAIN ST, PRATTSBURGH NY
PULTENEY AMBULANCE CORP	9203 ROUTE 74, PULTENEY NY
PULTENEY FIRE DEPARTMENT	8891 BROWN RD, PULTENEY NY
PULTENEY FREE LIBRARY	9226 ROUTE 74, PULTENEY NY

**Empire Telephone Corp. - Anchor Institutions**

<b><u>Name</u></b>	<b><u>Address</u></b>
STEUBEN ARC	10305 PINNEY, PRATTSBURGH NY
STEUBEN COUNTY HIGHWAY DEPT	7318 ROUTE 74, PRATTSBURGH NY
THE TOMPKINS CO TRUST CO	100 MAIN, ODESSA NY
TOWN OF CATHARINE	5182 PARK, TOWN OF CATHERINE NY
TOWN OF CAYUTA	6360 ROUTE 224, TOWN OF CAYUTA NY
TOWN OF HECTOR	5097 ROUTE 227, TOWN OF HECTOR NY
TOWN OF LODI	8440 MAIN, LODI NY
TOWN OF OVID	8440 MAIN, LODI NY
TOWN OF PEMBROKE	1145 MAIN, PEMBROKE NY
TOWN OF PRATTSBURGH	19 MAIN ST, PRATTSBURGH NY
TOWN OF PRATTSBURGH	2 FEDDERMAN, PRATTSBURGH NY
TOWN OF PULTENEY	10830 MILL, PULTENEY NY
UNITED STATES GOVERNMENT	5640 ROUTE 414, TOWN OF HECTOR NY
UNITED STATES GOVERNMENT	3986 LAKE AVE, BURDETT NY
UNITED STATES GOVERNMENT	6338 ROUTE 224, CAYUTA NY
US POST OFFICE	5908 ROUTE 11, ALPINE NY
US POST OFFICE	223 MAIN, ODESSA NY
US POST OFFICE	10 MAIN, PRATTSBURGH NY
US POST OFFICE	9256 ROUTE 74, PULTENEY NY
US POSTAL SERVICE	8643 READ, EAST PEMBROKE NY
USDA NATIONAL FINANCE CENTER	5218 ROUTE 414, HECTOR NY
USDA NATIONAL FINANCE CENTER	6349 COOK SCHOOL RD, PRATTSBURGH NY
VERIZON WIRELESS	4715 STEWART RD, TOWN OF MONTOUR NY
VILLAGE OF BURDETT	3830 WILLOW, BURDETT NY
VILLAGE OF ODESSA	300 MAIN, ODESSA NY

**North Penn Telephone Co. - Anchor Institutions**

<b><u>Name</u></b>	<b><u>Address</u></b>
AES WIND GENERATION	2806 MOUNTAIN RIDGE RD, SULLIVAN TWP
AREA AGENCY ON AGING	ROUTE 14, GILLETT PA
AREA AGENCY ON AGING	37 BACK ST. MILLERTON PA
ARMS WIDE OPEN DAYCARE	13502 BERWICK TPKE, GILLETT PA
ATHENS AREA SCHOOLS	1 CHURCH ST, SMITHFIELD PA
BAKERCREST HOME FOR THE ELDERLY	76 BAKER CREST LN, MANSFIELD PA
BIG ELM FIRE DEPARTMENT	7740 ROUTE 549, MILLERTON PA
BLUE RIDGE CABLE	1981 THOMPSON HILL RD, GILLETT PA
CITIZENS & NORTHERN BANK	563 MAIN ST, SMITHFIELD PA
FIRELY HOME FOR KIDS	14975 BERWICK TPKE, RIDGEBURY PA
FIRST CITIZENS COMMUNITY BANK	41 ROUTE 328, MILLERTON PA
FIRST CITIZENS COMMUNITY BANK	33178 ROUTE 14, GILLETT PA
HARRIET CHILD ELEMENTARY	1 CHURCH ST SMITHFIELD, PA
JACKSON TOWNSHIP SUPERVISORS OFFICE	37 BACK STREET, MILLERTON PA
MEADORS PERSONAL CARE HOME	6945 CORYLAND ROAD, GILLETT PA
MILLERTON FIRE DEPARTMENT	16 NORTH ROAD, MILLERTON PA
MOSHERVILLE ELEMENTARY SCHOOL	64 SCHOOL STREET, MILLERTON PA
PA DEPT OF HIGHWAY	6916 RTE 549, JACKSON TWP PA
RIDGEBURY FIRE DEPARTMENT	13278 BERWICK TPKE, PA
RIDGEBURY TOWNSHIP OFFICE	13278 BERWICK TPKE, PA
ROSEVILLE BOROUGH COUNCIL	114 ROSEVILLE AVE, MANSFIELD PA
RUTLAND TOWNSHIP	75 ROSEVILLE AVENUE, MANSFIELD PA
SMITHFIELD FIRE DEPARTMENT	24 VILLAGE GREENWAY, SMITHFIELD PA
SMITHFIELD TWP	48 FACTORY LN, SMITHFIELD PA
SOUTH CREEK FIRE DEPARTMENT	ROUTE 14, GILLETT PA
SOUTH CREEK TOWNSHIP GARAGE	MONKEY RUN RD, GILLETT PA
SULLIVAN TOWNSHIP	308 SEYMOUR HILL ROAD, MAINESBURG PA

**North Penn Telephone Co. - Anchor Institutions**

<b><u>Name</u></b>	<b><u>Address</u></b>
TALISMAN ENERGY USA INC	2344 MOUNTAIN RIDGE RD, MANSFIELD PA
TIOGA CTY EMERGENCY SERVICES	RUTLAND TWP PA
TRI-COUNTY RURAL ELECTRIC CO.	107 AUMICK RD, MAINESBURG PA
TRI-TWP AMBULANCE ASSN	48 FACTORY LN, SMITHFIELD PA
ULSTER TOWNSHIP	OAK HILL DRIVE, ULSTER PA
UNITED STATES POSTAL SERVICE	121 MAINESBURG RD, MAINESBURG PA
US POST OFFICE	33165 ROUTE 14, GILLETT PA
US POST OFFICE	30 VILLAGE GREEN WAY, SMITHFIELD PA
VERIZON WIRELESS	19940 ROUTE 6, MAINESBURG PA
VERIZON WIRELESS	1775 THOMPSON HILL ROAD, GILLETT PA
VERIZON WIRELESS	1071 RIDGE ROAD, GILLETT PA
VERIZON WIRELESS	171 AUMICK ROAD, MANSFIELD PA
VERIZON WIRELESS	287 WATER STREET, SMITHFIELD PA
WELLS TOWNSHIP	7214 CORYLAND RD, MILLERTON PA